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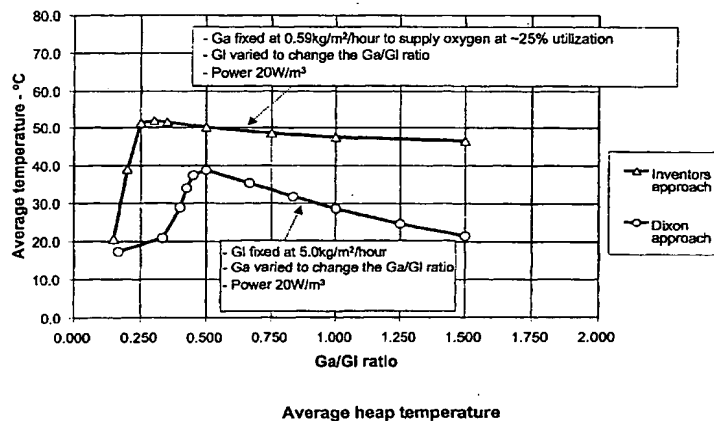
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(54) Title: HEAP LEACH PROCESS



(57) **Abstract:** The invention discloses a method of controlling a heap leach process through controlling an irrigation rate of a heap as a function of at least one of an aeration rate of the heap, a determination of advection at least at one predetermined point in the heap, and a determination of temperature at least at one predetermined point in the heap. Also disclosed is for the aeration to be forced and for the method to include the step of controlling the aeration rate as 10 a function of a determination of the oxidation rate of material within the heap. The invention also extends to a method for the introduction of microorganisms into the heap of material, a method for increasing the temperature of heap of material for heap leaching, a method of determining an optimum heap configuration for a bio-assisted heap leach process of an ore heap, and a method of enriching the environment of microorganisms embedded in a heap of material for bio-assisted heap leaching.

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